

FIRST GLOBAL SURVEY

Unleashing the Power of Artificial Intelligence in Project Management

Prof. Antonio Nieto-Rodriguez
Prof. Ricardo Viana Vargas , Ph.D.

August 2023



Introduction

In June 2023, we embarked on an exciting journey to explore the uncharted territories of Artificial Intelligence within Project Management.

The rapid technological advancements and the transformative potential of AI elevated our curiosity, leading us to conduct a comprehensive survey among experts and practitioners worldwide.

AI can enhance project management through automation of repetitive tasks and enable more efficient scheduling, resource allocation, and risk assessment.

Research Snapshot

772
EXPERTS

42%
PROJECT MANAGERS

95
COUNTRIES

45.14%
ORGANIZATIONS ABOVE
1,000 EMPLOYEES

28.4%
EXECUTIVES /
SENIOR MANAGERS

Why This Survey Matters

Understanding the integration of AI into Project Management is more than an academic endeavor; it's a pressing reality that influences project success, efficiency, and innovation.

Our survey, conducted in **June and July 2023**, aimed to bridge the gap between theory and practice, unraveling the impact, possibilities, and challenges of AI-driven Project Management.

Uncovering Insights and Trends

The findings of our survey, comprising insights from **772 experts** across the globe, are both enlightening and thought-provoking. They reveal how organizations leverage AI for predictive analytics, risk management, automation, and more.

The insights also shed light on the existing barriers, ethical considerations, and the strategic alignment of AI with organizational goals.

A Glimpse into the Future

Through this white paper, we share our discoveries, reflections, and projections for a future where **AI is not a mere tool but a strategic partner in Project Management**.

The survey paints a vivid picture of a landscape that is adapting to AI and thriving because of it.

Our Invitation

As you explore into the following pages, we invite you to join us in understanding the multifaceted world of AI in Project Management.

The findings are not just statistics and trends but a narrative encapsulating the industry's collective wisdom, aspirations, and foresight.

Together, we embark on a journey towards a future that is not merely shaped by AI but is reimagined and reinvigorated by it.

Antonio and Ricardo



Key Findings

In our pursuit to understand the intricate interplay between Artificial Intelligence and Project Management, we gathered insights from 772 experts across various industries and geographies who completed our survey

On this page and, on the next, are the **top 10 insights** that emerged from our survey:

01

Recognition of AI's Potential in Project Management

74.79% of experts acknowledge the power of AI to enhance project execution, decision-making, and alignment with strategic goals.

02

Fear of AI Job Takeover

Participants expressed a low level of concern (29%) regarding AI taking over their jobs in the next five years. The fear level increases to 40% in the next 15 years, highlighting awareness of AI's long-term impact.

03

Improvements in Project Delivery with AI Tools

41.06% of experts report significant enhancements in project delivery since adopting AI-based tools and techniques.

04

The Urgent Need for Skill Adaptation

62% of experts stress the importance of acquiring new skills, such as data analysis and AI-based tool management, to leverage AI effectively.

05

Emphasis on Sustainability in Project Management

82.86% of experts highlight the importance of incorporating sustainability considerations into project management strategies.

06

AI's Role in Promoting Diversity and Inclusion

25.50% of experts see AI as instrumental in eliminating biases and fostering diversity within project management practices.

Key Findings

(Cont.)

07

Concerns About Ethical Implications in AI Decision-Making

74.78% of experts express apprehension regarding potential ethical challenges arising from AI-based decision-making processes.

08

AI as a Catalyst for Innovation in Project Management

65.13% of experts view AI as a key factor in stimulating innovation and implementing advanced project management strategies.

09

Challenges and Barriers in AI Integration

While recognizing the benefits, experts also highlight the challenges and barriers in integrating AI into existing project management frameworks, calling for strategic planning and careful implementation.

10

Investment in AI Exploration

Project managers exhibited varying levels of enthusiasm for investing in exploring AI's potential in project management, with 50.72% being very likely to invest, and 29.68% feeling somewhat likely.

QUESTION 1

How worried are you that AI might take over your job in the next five years?

Perhaps surprisingly, on average, participants expressed a relatively low level of concern (29%) that AI might replace their role over the next five years.

This reflects a growing understanding that AI is not a direct threat but a tool that can augment a project manager's work.

FUTURE EVOLUTION

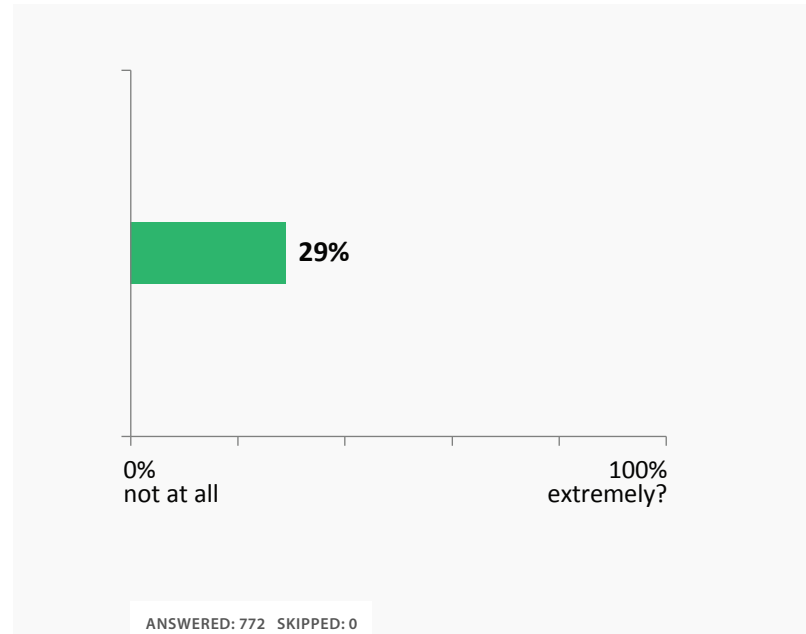
Imagine a future where AI-powered project assistants seamlessly collaborate with project managers, leveraging advanced predictive capabilities, natural language processing, and adaptive decision-making to drive project success.

With the integration of AI, you will gain access to real-time insights, intelligent automation, and enhanced data-driven decision-making, enabling you to navigate complexities, identify patterns, and optimize project outcomes.

OUR ADVICE

To capitalize on the benefits of AI in project management, consider incorporating AI-powered tools into your workflows.

These platforms offer advanced features such as AI-driven resource allocation, automated task management, and predictive analytics to streamline project processes and improve efficiency.



"I see AI as being my assistant and working with me to solve problems, strategize on best approaches and industry best practices."

"AI is like an experienced old man willing to share its wisdom if we learn how to ask. I think we need to become experts in the human side of the business to blend the power of AI with the imperfect world of Humans."

QUESTION 2

How worried are you that AI might take over your job in the next fifteen years?

Expanding the time horizon to 15 years increases career anxiety from 29% (of the next five years) to 40%, a sure indicator of how project managers acknowledge AI's continued development and growing involvement in various roles.

However, it's crucial to recognize that AI advancements do not necessarily equate to job elimination but rather job transformation as they create a need for new skills to complement the technology.

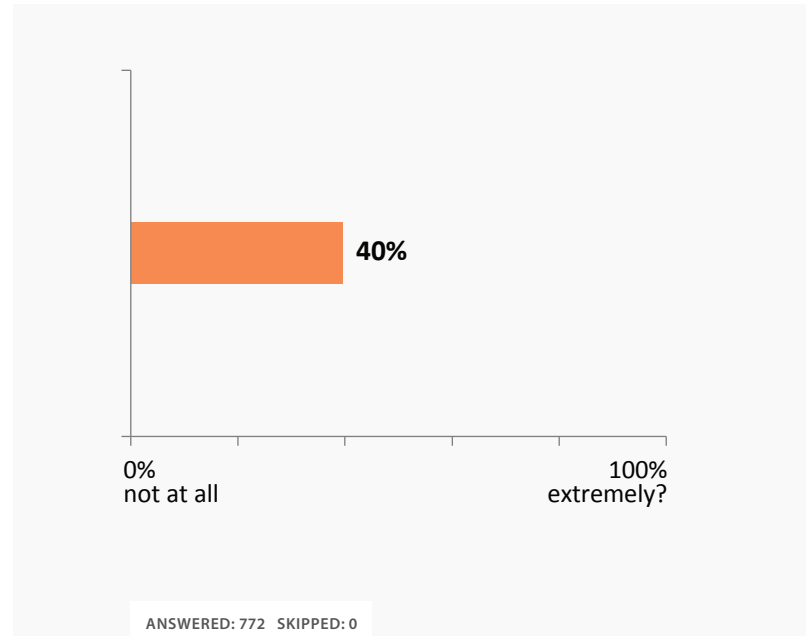
FUTURE EVOLUTION

In the decades to come, you can expect AI to play a more strategic and collaborative role, augmenting your capabilities and enabling you to focus on higher-value tasks that require human expertise.

OUR ADVICE

To thrive in an AI-driven project management environment, you should actively engage in AI-related training and upskilling.

Explore specialized programs offered by institutions like [MIT Professional Education](#) or [Stanford Center for Professional Development](#) to gain expertise in AI implementation, machine learning, and data analytics.



"AI in its current form has a high capability to take responsibility for routine work but cannot replace humans for decision-making and problem-solving."

QUESTION 3

How familiar are you with the concept of artificial intelligence (AI) in project management?

Our survey reveals a broad spectrum of familiarity with AI in project management, with only 16.71% of respondents claiming to be very familiar with the concept.

However, roughly 64.74% of respondents are either moderately, somewhat, or very familiar, indicating a majority awareness of AI's relevance.

FUTURE EVOLUTION

As AI continues to advance, the future of project management will witness a significant increase in the use of AI and associated technologies.

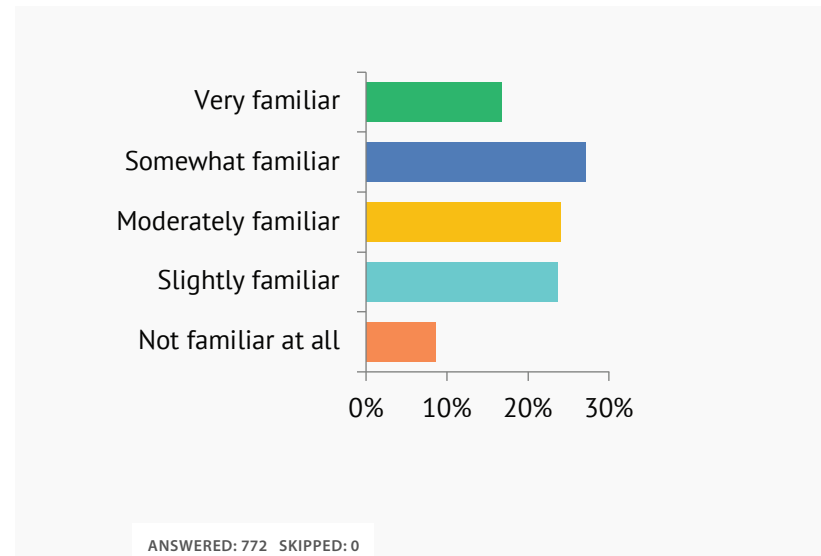
You can expect more sophisticated and intelligent systems that augment project management capabilities.

AI will play a crucial role in areas such as risk prediction, resource allocation optimization, and intelligent decision support, enabling you to make data-driven and strategic choices.

OUR ADVICE

To stay ahead in the evolving landscape of project management, you should embrace AI technologies and work on developing the skills to grow your AI literacy.

Explore AI-powered project management tools and platforms to streamline project workflows, automate repetitive tasks, and enhance collaboration.



"I know it will impact project management tremendously, but I am not familiar with the tools yet."

"I use Chat GPT to prepare some communications to my customers, then I read it and tailor it to fit my needs."

QUESTION 4

Have you used AI-based tools or software for project management purposes?

The survey results indicate that project managers have already done early experiments with AI in their projects or are at least openly looking for opportunities to do so.

Since AI changes how we all work, adopting it requires thought about the user case and the design of the process, which may account for the gap between those considering AI and those already using it.

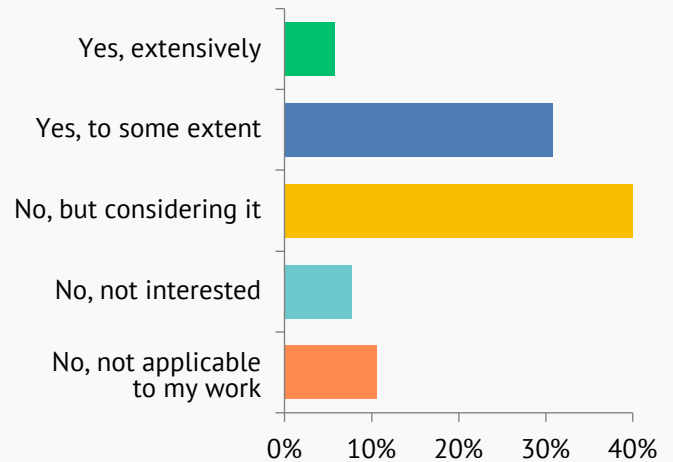
FUTURE EVOLUTION

In the coming decades, as the potential for AI and the quality of data increases, you can anticipate a sharp acceleration in the growth of both internally generated and commercially developed applications of AI in projects.

OUR ADVICE

To adapt to the evolving professional landscape, you should focus on upskilling and reskilling yourself and your project teams, for example, by taking part in collaborative hacks or supporting and incentivizing the more data-literate employees to build tools and apps to exploit project data and improve decision-making.

Stay updated with industry trends and horizon scan for stories of advancements in AI technologies, emerging tools, and software.



ANSWERED: 772 SKIPPED: 0

"Tools for Data analysis, reporting, early warnings, alternative suggestions based on project status. Also, to map projects against similar projects and give a precursor of common risks, what was done right and what went wrong for similar projects, etc."

QUESTION 5

In your opinion, which areas of project management do you believe AI can most effectively improve?

The survey responses provide valuable insights into the areas where AI can significantly impact project management, as identified by participants.

Currently, task scheduling and resource allocation (78.76%) and risk identification and mitigation (68.78%) are the front runners.

FUTURE EVOLUTION

Imagine a future project management scenario where AI algorithms analyze vast amounts of historical project data, real-time market trends, and resource availability to generate optimal project schedules and allocate resources automatically and with remarkable precision.

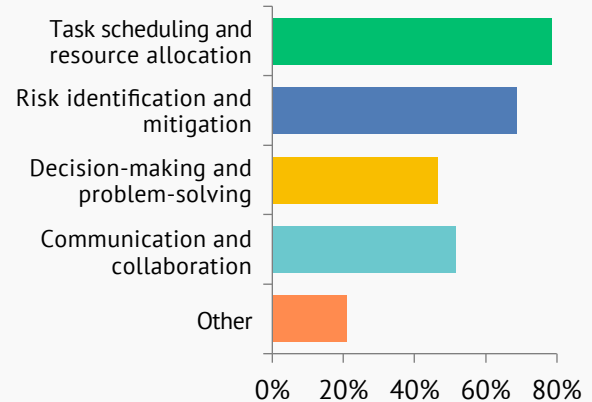
AI-powered predictive models would anticipate potential risks, enabling you to identify and mitigate them before they even manifest proactively.

This future evolution of AI in project management will revolutionize the efficiency and accuracy of these critical processes, resulting in streamlined project execution and improved project outcomes.

OUR ADVICE

To prepare for this AI-driven future, you should focus on acquiring data analytics and machine learning skills.

Tools like [Microsoft Power BI](#), [Tableau](#), or [RapidMiner](#) can assist in analyzing project data and uncover valuable insights.



ANSWERED: 772 SKIPPED: 0

“Financial Management using EVM, take my minutes and distribute, update my RAID log, identify impacts to issue resolution delays, and the list goes on for me.”

“Lessons learned; Design review for new products -research, development, and implementation to gain a competitive edge; data analytics; predictive forecasting; automate project documentation.”

QUESTION 6

What percentage of current Project Management & PMO activities will be taken over by AI in the next five years?

The survey respondents offered a wide range of opinions regarding the percentage of project management and PMO activities that will become automated over the next five years.

The largest percentage, 39.77%, believe AI will assume approximately 20% of current activities. This perspective aligns with the notion that AI will augment rather than completely replace project management roles.

For example, AI automates repetitive tasks such as data entry or insight generation from large datasets, enabling project managers to focus on more strategic and value-added activities.

FUTURE EVOLUTION

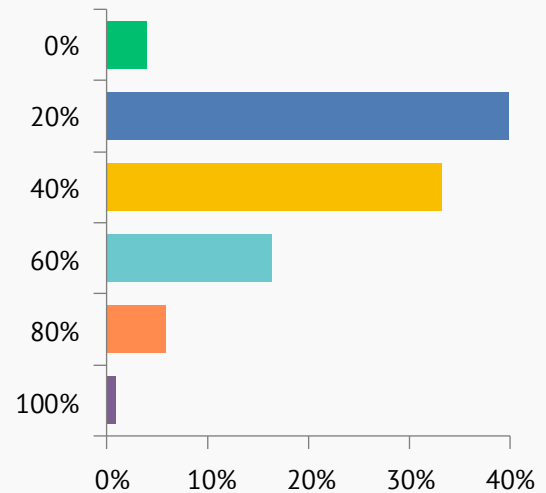
As AI technology continues to advance, it is likely that AI will gradually assume a more prominent role in project management activities.

However, a complete takeover of 100% (as suggested by 0.91% of respondents) seems unlikely in the foreseeable future.

OUR ADVICE

Rather than fixating on the exact percentage, focus on developing a mindset of adaptability and continuous learning.

Embrace AI as a tool to augment and enhance project management activities and stay informed about the latest developments in the field.



ANSWERED: 772 SKIPPED: 0

"AI will not take them over but make them much more efficient."

"90% - AI is not expected to completely replace human project managers or eliminate the need for PMOs. The role of human expertise, decision-making, and relationship management will remain crucial in managing complex projects and addressing unpredictable challenges. New demand for this area may show up that should not eliminate human interface."

QUESTION 7

What percentage of current project management and PMO activities will AI take over in the next 15 years?

Extending the frame from 5 to 15 years offers a wide variety of user perspectives. While 32.12% believe that AI will take over around 60% of activities, 25.52% estimate an 80% takeover.

These responses suggest a growing recognition of AI's potential to significantly impact project management processes and workflows.

It's worth noting that a considerable portion of respondents (23.96%) anticipate AI taking over only 40% of activities, indicating a belief in a more gradual and moderate transformation.

FUTURE EVOLUTION

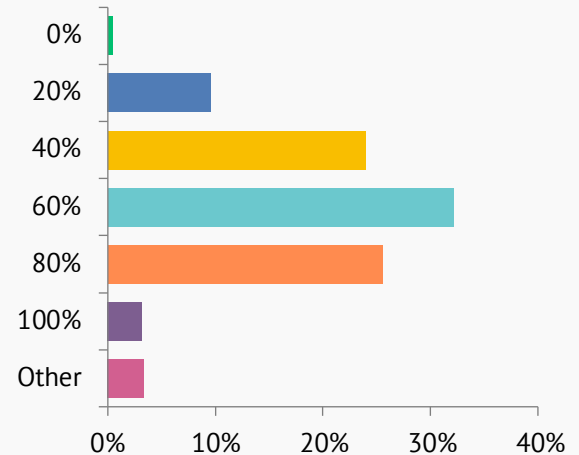
The projections on AI's impact on project management activities for the next fifteen years suggest a substantial level of integration, with AI taking on a significant portion of routine and repetitive tasks.

Nevertheless, human expertise, strategic decision-making, and interpersonal skills will remain crucial elements AI cannot (and should not) fully replace.

OUR ADVICE

As you navigate the evolving landscape of AI in project management, staying proactive and embracing the changing dynamics is essential.

By leveraging AI tools, you can harness its capabilities to enhance productivity, streamline processes, and achieve successful project outcomes.



ANSWERED: 772 SKIPPED: 0

"For engineering design and construction projects, there are three key applications of AI. The first is using this technology in planning (preparation from the design and modeling of production). The second is supervising the progress of the works throughout the compilation phase, which makes it possible to predict the risk before it materializes. Lastly, AI can be applied to map cross-functional processes in real-time, producing useful information in making operational and strategic decisions."

QUESTION 8

How important is the integration of AI in project management for achieving organizational and strategic goals?

The survey results indicate that a majority of respondents (45.60%) consider the integration of AI in project management to be strategically very important for achieving organizational goals.

This high percentage reflects the growing recognition of AI's potential to drive efficiencies, improve decision-making, and enhance project outcomes.

FUTURE EVOLUTION

Envision a future where AI becomes an indispensable collaborator in project management, revolutionizing traditional approaches and empowering project teams to achieve unprecedented levels of efficiency and effectiveness.

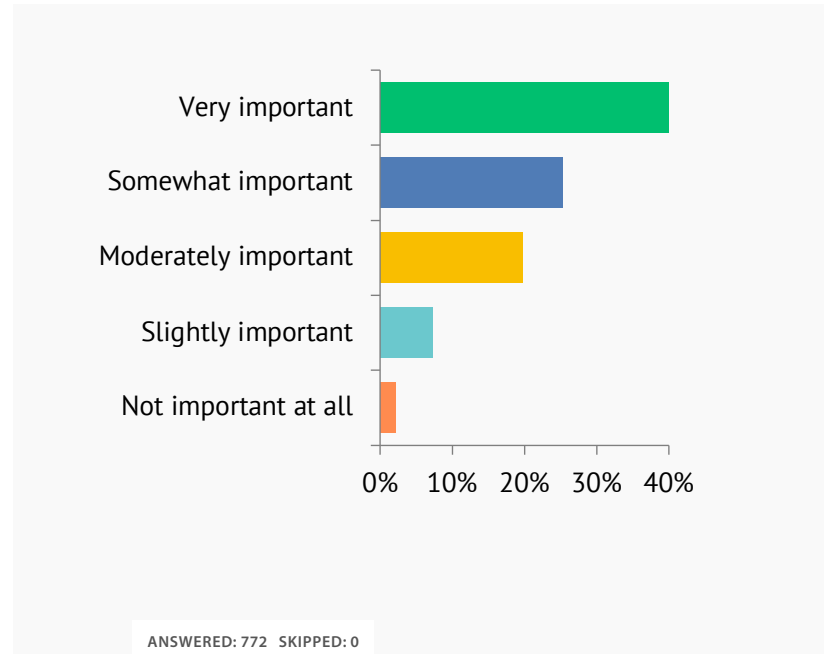
AI algorithms will continually learn from vast datasets, enabling dynamic risk assessments, adaptive resource allocation, and real-time project monitoring.

OUR ADVICE

You and your organization should recognize the strategic importance of AI integration in project management.

Invest the time and resources in exploring AI solutions that align with your specific needs and goals.

By embracing AI strategically, organizations can enhance their project management capabilities and drive successful outcomes.



"AI will help with the quantitative aspects but cannot replace human critical thinking."

"It can be a useful tool if in the right hands, but it will not replace project managers or CEO that are essential to communicating strategy with employees and stakeholders."

QUESTION 9

How well do you think AI can contribute to strategy implementation in project management?

Survey respondents offer a generally positive outlook on how AI can contribute to strategy implementation in project management.

The majority (37.69%) believe that AI can significantly enhance strategy implementation, emphasizing the potential of AI to improve project execution, decision-making, and overall strategic alignment.

It is worth noting that 22.28% of respondents consider AI to have a somewhat enhancing effect on strategy implementation, implying that AI's potential in this area is recognized, albeit with some reservations.

FUTURE EVOLUTION

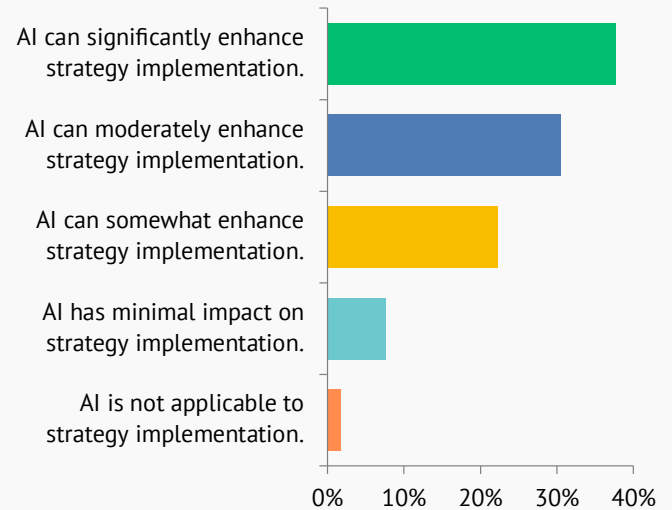
As AI continues to advance and evolve, its contribution to strategy implementation in project management is expected to increase.

AI's ability to analyze large amounts of data, identify patterns, and generate insights can provide project managers with valuable information to align projects with organizational strategy.

OUR ADVICE

You should explore the potential of AI in strategy implementation and leverage AI-based tools to support your decision-making processes.

And it is essential that you strike a balance between human judgment and AI-generated insights to ensure that strategic decisions remain aligned with the broader organizational context.



ANSWERED: 772 SKIPPED: 0

"With proper data classification feeding into the AI algorithms to produce results that will provide solid information for decision-making through real-time data and the ability to utilize the technology to streamline operational aspects, strategy implementation becomes agile and not stagnant. It will help bridge the gap between planning and delivering strategy because, hopefully, a "live pulse" can be viewed at any given time on the specific strategic initiatives in play. That will provide the ability to pivot when presented with shifting priorities based on accurate information."

QUESTION 10

How comfortable are you with incorporating AI technologies into project management processes?

The survey responses suggest that project managers are receptive to integrating AI technologies into project management processes.

A majority (36.92% feeling very comfortable and a further 37.05% feeling somewhat comfortable) display a positive attitude towards leveraging AI as a valuable tool.

Only a small percentage (5.31% rather uncomfortable and 1.42% very uncomfortable) express reservations about incorporating the technology.

FUTURE EVOLUTION

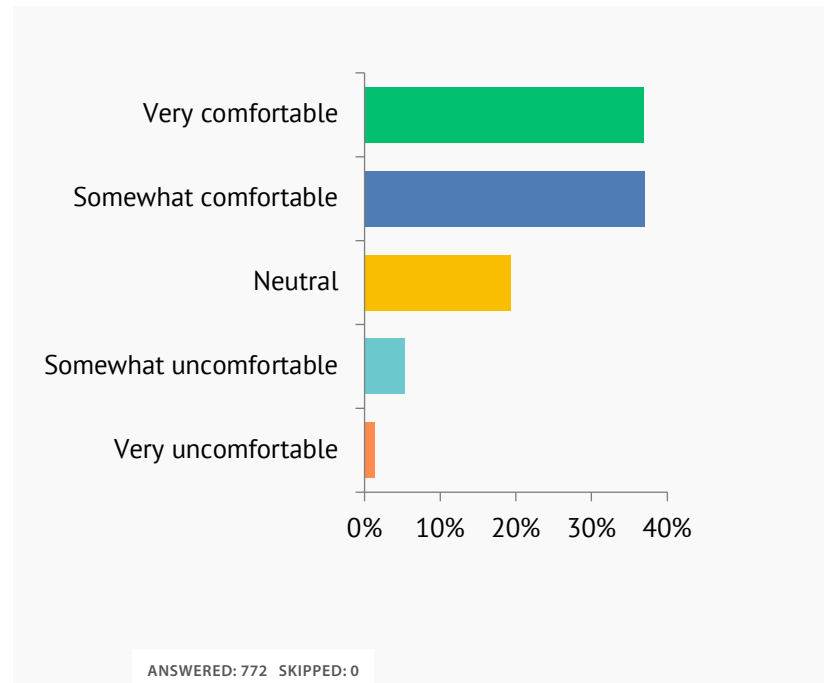
Picture a future where AI technologies revolutionize project management, empowering project managers with unprecedented capabilities.

Advanced AI algorithms and intuitive interfaces will enable project managers to collaborate seamlessly with AI systems.

OUR ADVICE

To embrace the potential of AI in project management, familiarize yourself with AI tools that augment your work. Explore AI-powered platforms like [Monday.com](#), [Smartsheet](#), and [Asana](#), which offer intelligent automation, predictive analytics, and real-time collaboration features. A

dditionally, leverage AI-driven data analytics tools like [Tableau](#), [Power BI](#), [PMOtto](#), or [Google Data Studio](#) to derive valuable insights for informed decision-making.



"Project Management can evolve exponentially from the use of AI."

"The combination of multiple AI techniques can often yield even greater benefits by leveraging their complementary strengths. It's worth mentioning that AI is a rapidly evolving field, and new techniques and approaches continue to emerge. Organizations should stay updated with advancements in AI and explore other techniques that align with their project management needs and goals."

QUESTION 11

In your opinion, which AI techniques hold the most potential for project management?

The survey results reveal a positive outlook on the overall impact of AI in project management.

A majority of respondents (73.06%) believe that machine learning holds the most potential, followed by natural language processing (62.18%) and robotic process automation (55.31%).

Real-world examples demonstrate how AI is already being leveraged in various project management areas.

FUTURE EVOLUTION

Project management will witness a transformative era as AI technologies advance.

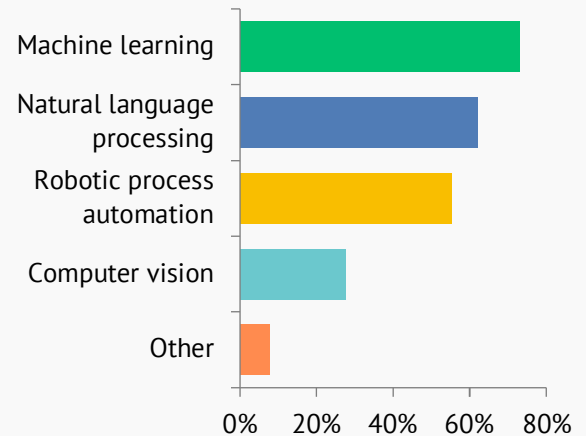
Machine learning will optimize decision-making, natural language processing will streamline communication and knowledge management, and RPA will automate repetitive tasks.

AI-powered systems enable real-time monitoring, proactive risk mitigation, and strategic alignment, resulting in more successful project outcomes.

OUR ADVICE

To leverage AI's potential in project management, consider online courses and certifications on platforms like [Coursera](#), [Udemy](#), and [edX](#).

Engage with AI communities, attend industry conferences like [AI Summit](#), and network with experts to give yourself valuable insights.



ANSWERED: 772 SKIPPED: 0

"AI is fundamentally implemented through machine learning, natural language processing, computer vision, robots physical and robotic process automation (RPA). All these fields can be successfully applied to project construction to improve efficiency and reduce costs, deadlines, and errors."

QUESTION 12

How much will the project manager's skills need to be adapted?

The future evolution of AI in project management is set to push boundaries and redefine the role of project managers.

While it's uncertain whether AI will ultimately replace human involvement, the potential for AI to reach a significant level of integration is high.

Some respondents (32.12%) believe AI could take over around 60% of project management activities, while others (25.52%) estimate an 80% takeover. This indicates a potential for substantial AI integration, reshaping the project management landscape.

FUTURE EVOLUTION

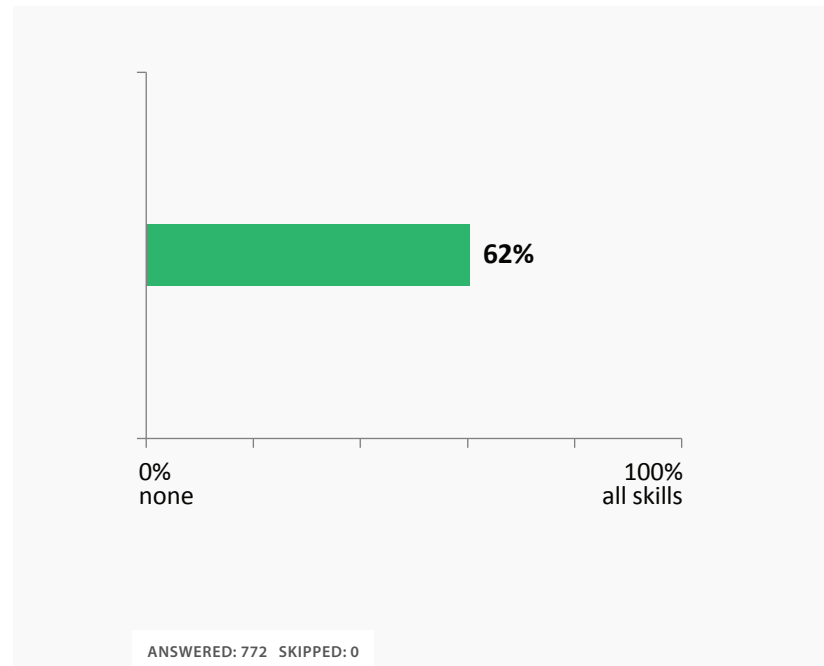
AI's impact on project management is expected to be substantial, with the extent of integration likely reaching a significant level.

While a complete 100% takeover (as suggested by 0.91% of respondents) may be unlikely in the foreseeable future, AI's influence is poised to reshape roles and processes, enabling you to focus on more complex and strategic activities.

OUR ADVICE

Embrace the evolving nature of project management and adapt to the changing landscape

Rather than fixating on the exact percentage, think about developing a growth mindset and continuously expanding your skillset to collaborate effectively with AI technologies.



"PMs will have to understand how and where AI can help address common project management risks and roadblocks and use it to augment and enhance their project success."

"Traditional analytical skills will need to be modified."

QUESTION 13

Which of the following new skills will be required to be a successful project manager in AI?

The survey responses provide valuable insights into the emerging skills necessary for project managers to thrive in the AI-driven landscape.

Data science and analytics (62.82%), critical thinking and problem-solving (74.48%), and ethical and legal understanding (55.05%) are identified as essential skills for project managers to excel in analyzing data, navigating complex challenges, and considering ethical implications.

FUTURE EVOLUTION

Brace yourself for a future where project managers in the AI-driven landscape will need to go beyond traditional skills.

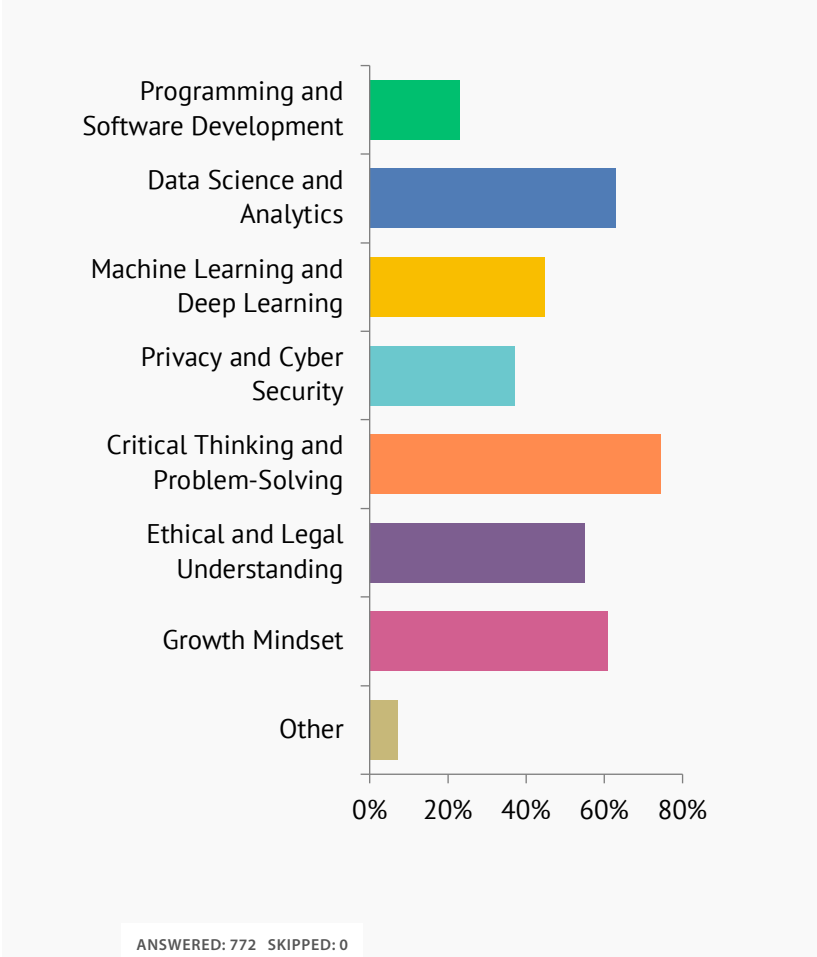
You'll need to acquire expertise in cutting-edge areas such as explainable AI, algorithmic bias mitigation, AI ethics frameworks, and human-AI collaboration.

OUR ADVICE

To ensure you thrive in the AI-driven landscape, explore specialized training and certifications in data science, such as the [IBM Data Science Professional Certificate](#) or Coursera's [Applied Data Science with Python](#).

Look for opportunities to collaborate with AI experts and leverage AI-powered tools like [Azure Machine Learning](#), [RapidMiner](#), or [H2O.ai](#).

By gaining hands-on experience and practical knowledge in these areas, you can position yourself as an AI-savvy professional who can drive successful project outcomes in the rapidly evolving, data-rich landscape.



"As a generalist digital transformation PM, I'd be more interested in being knowledgeable about all of these. However, I would not seek to develop practical skills in coding, data sciences, etc. I'd expect the SMEs in the project to bring in those skill sets. However, I must understand the purpose, function, and interactions of these different skills/technologies/capabilities."

QUESTION 14

How confident are you in the accuracy and reliability of AI-generated project forecasts?

When it comes to the accuracy and reliability of AI-generated project forecasts, project managers express a range of confidence levels. While a small percentage feel very confident (8.36%), a more significant portion express some confidence (40.49%).

A considerable number remain neutral (30.40%), while some project managers express uncertainty, with 17.29% feeling somewhat uncertain and 3.46% very uncertain about the reliability of AI-generated forecasts.

FUTURE EVOLUTION

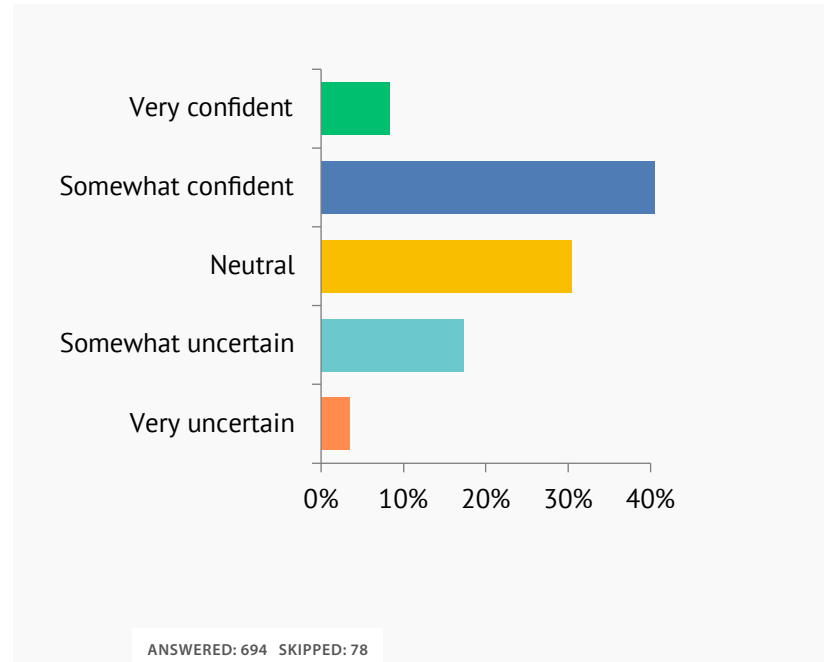
With ongoing advancements in machine learning algorithms, data quality assurance techniques, and model interpretability, you can expect enhanced accuracy, reliability, and transparency in AI-generated forecasts.

AI will evolve to provide real-time insights, adaptive forecasting, and scenario analysis, empowering you with more precise decision-making capabilities.

OUR ADVICE

To maximize the accuracy and reliability of AI-generated forecasts, you should utilize robust AI-powered tools such as [Forecast Pro](#), [DataRobot](#), or [SAS Forecast Studio](#).

Regular validation exercises, sensitivity analysis, and human oversight should complement AI-generated forecasts to account for context-specific factors and expert knowledge.



"AI tools will get faster and more accurate, but I still don't see a scenario where you can trust too much without reviewing carefully."

"Even if it is not as accurate or reliable as on date, over time with an iterative process and in an incremental manner, it will be accurate and reliable, and that is why Machine Learning is meant to learn based on the experience."

QUESTION 15

How likely are you to leverage AI for strategic decision-making in project management?

Project managers exhibit a range of views regarding leveraging AI for strategic decision-making in project management.

While a significant portion expresses this as somewhat likely (42.22%), others feel it is very likely (21.76%).

A notable percentage remains neutral (21.33%), while a smaller proportion lean toward it being somewhat unlikely (9.80%) or very unlikely (4.90%).

FUTURE EVOLUTION

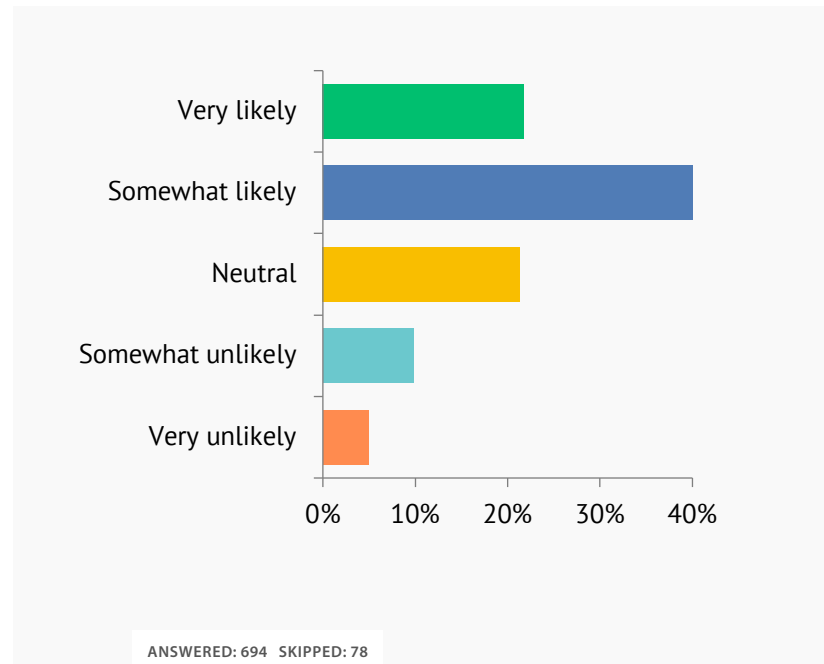
With advancements in machine learning, natural language processing, and decision support systems, you will have unprecedented opportunities to harness the power of AI, enabling data-driven insights, enhanced accuracy, and informed strategic decision-making.

OUR ADVICE

Embrace AI-powered decision support tools like IBM Watson Analytics, RapidMiner, and Tableau to optimize resource allocation, mitigate risks, and drive project success through AI-powered strategic decision-making.

Explore these practical solutions to gain valuable insights, identify patterns, and make informed strategic decisions.

Leverage the power of these tools to stay ahead in the rapidly evolving AI landscape and unlock new routes to success.



"It is like the electronic game of chess; it finds the best move in most cases."

"To some extent, AI may provide strategic insights that would otherwise not be realized through conventional thinking."

QUESTION 16

In your opinion, how can AI contribute to sustainable project management practices?

Respondents perceived that the main contribution of AI in sustainable project management practices is optimizing resource allocation and reducing waste (67.82%).

A smaller proportion of answers, like facilitating eco-friendly decision-making processes (14.51%) and fostering stakeholder engagement and social responsibility (10.20%), exhibited much smaller relevance.

Some respondents felt that AI has no impact on sustainability in project management (7.47%).

FUTURE EVOLUTION

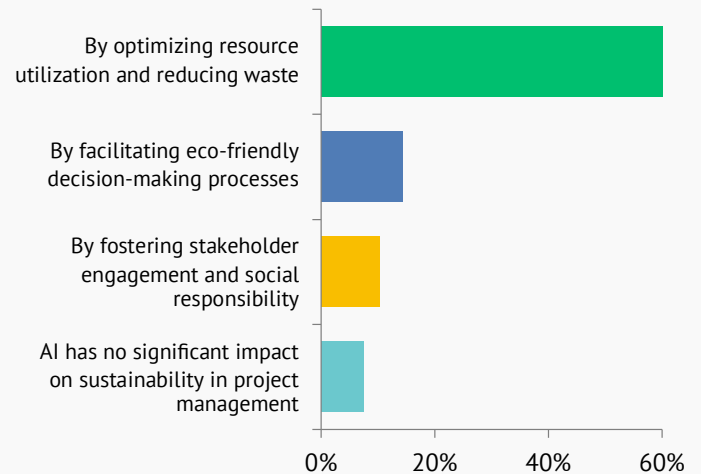
Imagine AI-powered systems seamlessly optimizing resource utilization, facilitating eco-conscious decision-making through real-time environmental data analysis, and fostering deep stakeholder engagement through immersive experiences.

OUR ADVICE

Leverage AI tools like [C3 AI Energy Management](#), [Locus EHS](#), and [Beekeeper](#) to optimize resources, make eco-friendly decisions, and effectively engage stakeholders.

Stay at the forefront by collaborating with AI experts, investing in AI-focused training, and actively participating in industry forums.

Embrace AI's transformative potential to lead the way toward a more sustainable future.



ANSWERED: 694 SKIPPED: 78

"Thanks for considering sustainability... great! Absolutely necessary."

QUESTION 17

How important is it to integrate sustainability considerations into project management strategies?

The urgency of integrating sustainability considerations into project management strategies is paramount. An overwhelming majority (55.48%) recognize sustainability as very important, emphasizing the need for immediate action. Additionally, 27.38% express that sustainability is somewhat important, highlighting the growing awareness of its significance in project management.

FUTURE EVOLUTION

The future of project management demands bold and decisive action in integrating sustainability considerations.

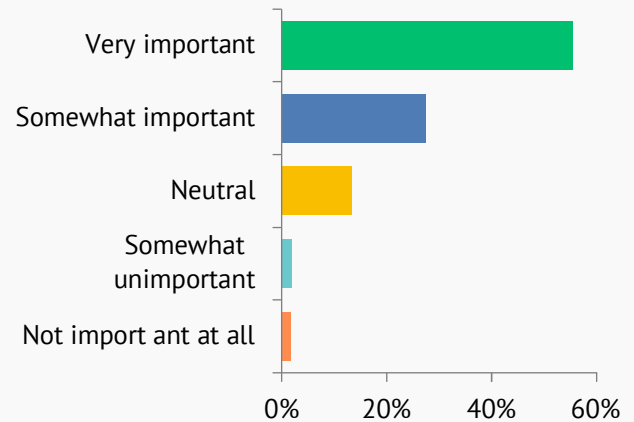
Organizations must prioritize sustainability as a core element of their project strategies, aligning with global environmental and social goals.

By embracing cutting-edge technologies like AI, IoT, and blockchain, you can optimize resource utilization, reduce waste, and drive sustainable practices to new heights.

OUR ADVICE

To integrate sustainability into project management effectively, you should leverage tools like **EcoDomus**, **BREEAM**, and **Enablon**, which provide robust sustainability assessment and management capabilities.

Engaging in sustainability-focused training programs and certifications, such as LEED or GRI, can go a long way toward enhancing your knowledge and expertise.



ANSWERED: 694 SKIPPED: 78

"AI can contribute to sustainable project management practices in several ways:

1. *Resource optimization*
 2. *Risk management*
 3. *Real-time monitoring: AI tools can monitor energy consumption, waste generation, and carbon footprint. This allows project managers to take appropriate actions to reduce the environmental impact.*
 4. *Life cycle analysis: AI can help conduct life cycle assessments of products and processes. This analysis considers the environmental impact of a product or process at every stage, from raw material extraction to disposal.*
- Overall, using AI in sustainable project management practices can lead to more efficient use of resources, reduced waste, and a positive environmental impact."*

QUESTION 18

In your opinion, how can AI contribute to sustainable project management practices?

Project managers' experiences with AI-based tools or project delivery techniques showcase varying improvement levels.

While a percentage (8.21%) report significant improvements, others have observed moderate (15.27%) or slight improvements (18.01%).

However, a considerable proportion (16.57%) have not noticed any improvements, possibly indicating the need for further AI implementation exploration or optimization.

FUTURE EVOLUTION

The future evolution of AI in project delivery holds the potential for even more remarkable improvements.

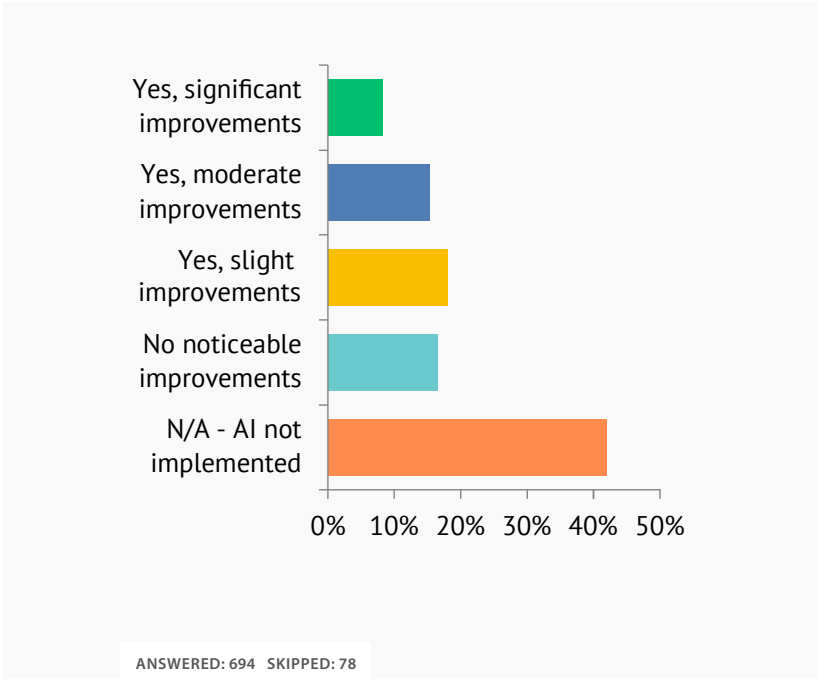
As organizations fine-tune their AI strategies, refine algorithms, and gather more data, the effectiveness of AI-based tools and techniques will likely continue to advance, leading to greater project delivery success.

OUR ADVICE

To maximize the benefits of AI in project delivery, organizations should take a holistic approach.

Exploring a diverse range of AI-based tools and techniques, such as predictive analytics platforms like **RapidMiner** or agile project management tools like **Jira**, can provide valuable insights and streamline project processes.

Another option is **PMOtto**, a generative AI virtual assistant that would provide real time insights in project management and your projects.



“Since implementing AI-based scheduling tools and techniques, we have seen a 20% improvement in project delivery time.”

“We have only been using an AI reporting tool, so it is too early to see any significant improvements in project delivery.”

QUESTION 19

Which of the following new skills will be required to be a successful project manager in AI?

While some perceive AI as a potential tool to reduce bias and promote diversity (25.50%), others are skeptical, suggesting that AI may perpetuate bias and hinder diversity efforts (17.58%).

Additionally, a notable percentage remains neutral (21.33%) or uncertain (22.48%) about the impact of AI in this context.

FUTURE EVOLUTION

As AI technology evolves, there is an opportunity to leverage its capabilities to promote diversity and inclusion in project management. With advancements in algorithms and data analysis techniques,

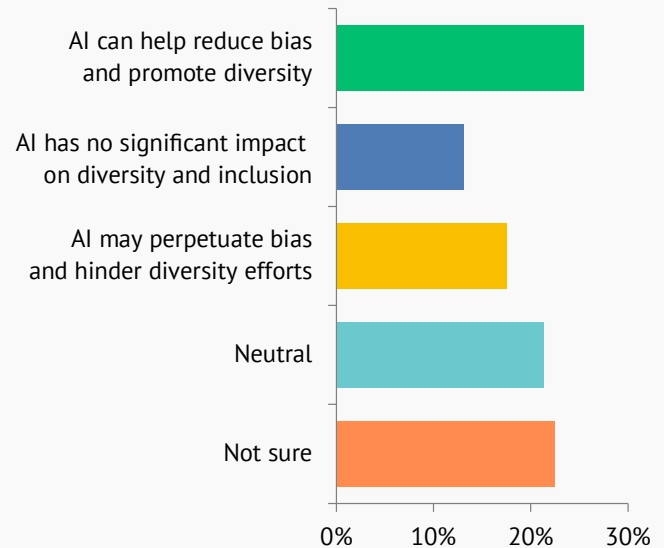
AI can be developed and deployed in ways that mitigate bias and ensure fair decision-making, fostering more diverse and inclusive project environments.

OUR ADVICE

To harness the potential of AI for promoting diversity and inclusion, organizations should prioritize ethical considerations and human oversight in AI development and deployment.

Implementing transparent AI algorithms, conducting regular audits for bias detection, and incorporating diverse perspectives in AI training data can help mitigate biases.

Additionally, leveraging AI-based tools like **TalVista**, **Textio**, or **Blendoor** can assist in promoting diverse hiring practices and reducing bias in talent acquisition.



ANSWERED: 694 SKIPPED: 78

“AI can analyze data and identify patterns that may be indicative of unconscious bias. This information can then be used to develop training programs and policies to help reduce bias in project management.”

QUESTION 20

How important is it to consider diversity and inclusion in AI algorithms used for project management?

While a significant percentage believes it is imperative (41.64%) to consider diversity and inclusion in AI algorithms, others find it somewhat important (23.34%).

A notable percentage remains neutral (22.77%), while a smaller proportion perceives it as relatively unimportant (4.76%) or not important at all (7.49%).

FUTURE EVOLUTION

The future evolution of AI in project management should prioritize integrating diversity and inclusion considerations into AI algorithms.

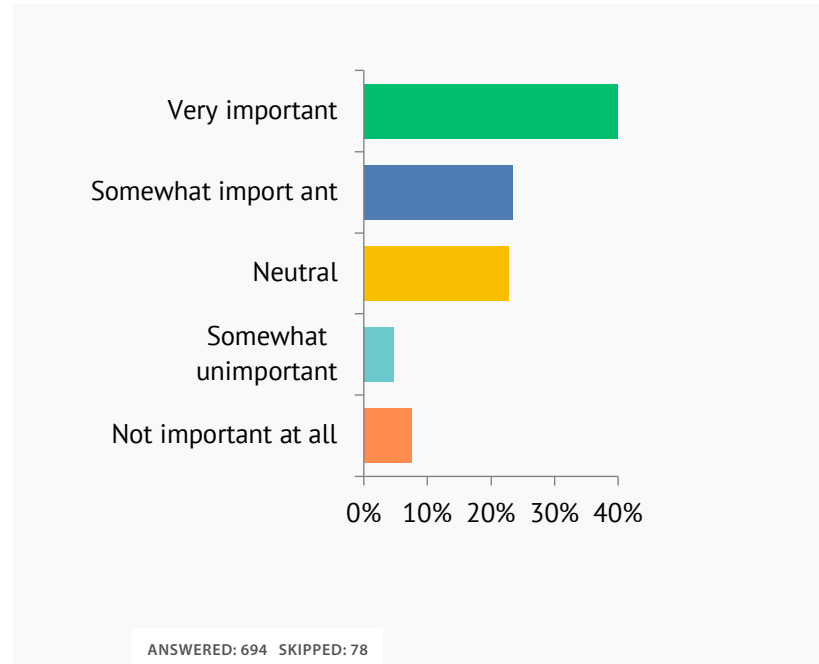
As AI continues to advance, you need to recognize the potential impact of biased algorithms and take proactive measures to ensure fairness, equity, and diversity in project management outcomes.

OUR ADVICE

Advocate actively for the development and utilization of inclusive AI algorithms.

Explore how you can collaborate with data scientists and AI experts to implement bias mitigation techniques and fairness metrics.

Tools such as [IBM AI Fairness 360](#), [Aequitas](#), and [Fairlearn](#) can assist in evaluating and addressing biases in AI algorithms.



"AI can help to level the playing field by providing everyone with the same access to information and resources. This can help to reduce the impact of factors such as race, gender, and socioeconomic status on project management outcomes."

QUESTION 21

How concerned are you about the ethical implications associated with AI-based decision-making in projects?

A significant percentage of respondents express being very concerned (36.31%) or somewhat concerned (38.47%) about these implications, indicating a heightened sense of anxiety.

A portion remains neutral (16.14%), while a smaller proportion is slightly concerned (5.04%) or not concerned at all (4.03%) about the ethical aspects.

FUTURE EVOLUTION

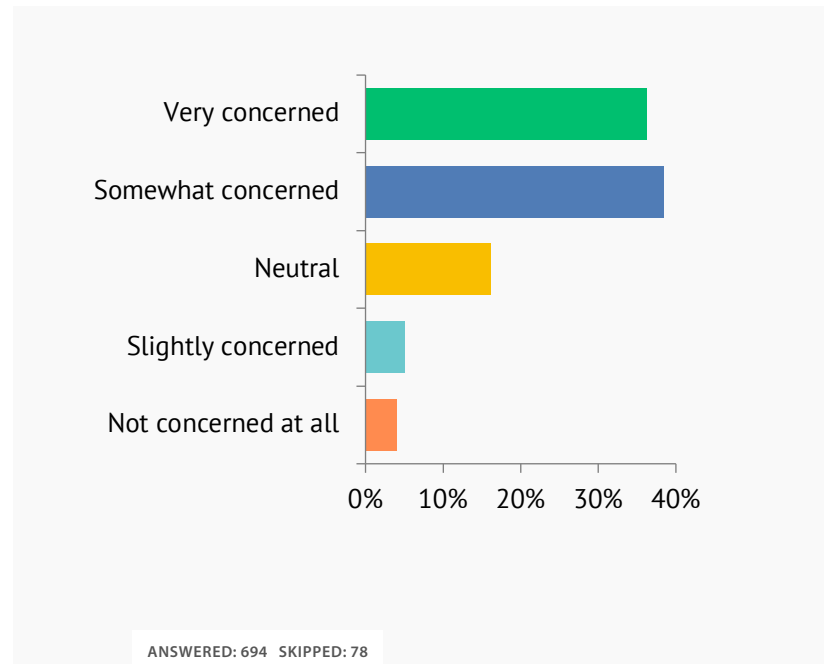
The future evolution of AI-based decision-making in project management demands urgent attention to address ethical considerations.

As AI technologies advance and play a more significant role in decision-making, you must proactively address the potential ethical implications to ensure responsible and trustworthy AI-driven project management practices.

OUR ADVICE

Make sure you adopt concrete measures to mitigate the ethical implications of AI-based decision-making. Implementing robust ethical guidelines, ethical decision frameworks, and regular ethical audits can help ensure that AI algorithms and models align with ethical standards.

Tools like [OpenAI's Ethical Decision-Making Framework](#) and [IBM Watson's AI Ethics Toolkit](#) can provide valuable guidance and resources for incorporating ethics into AI-based decision-making.



"It is important to use AI in a way that is ethical and responsible."

"I am very concerned about the ethical implications associated with AI-based decision-making in projects. We need to be careful about how we use AI, or it could be used to discriminate against people or make decisions that are not in the best interests of society."

QUESTION 22

In your opinion, what role can AI play in fostering innovation in project management?

Most respondents believe that AI can play a significant role in facilitating the generation and evaluation of innovative ideas (65.13%).

However, some respondents expressed skepticism, suggesting that AI may hinder creativity and innovation (14.84%).

Some respondents remain neutral (6.05%), while others are unsure (6.34%) about the impact of AI in fostering innovation.

FUTURE EVOLUTION

The future evolution of AI in project management holds immense potential for fostering innovation.

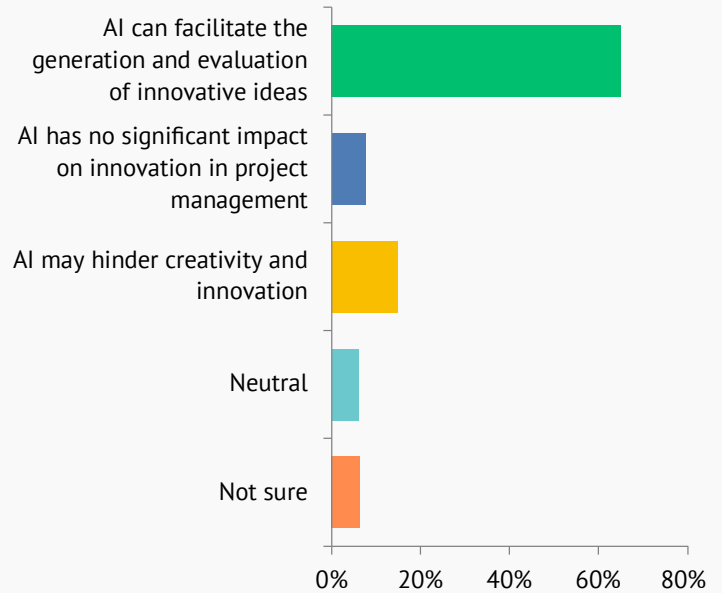
AI technologies can augment human capabilities, assist in idea generation, and enable data-driven insights that fuel innovation.

As AI advances, project managers can leverage AI tools to streamline processes, explore new possibilities, and drive innovation in project management.

OUR ADVICE

To harness AI's potential in fostering innovation, you should embrace AI-enabled innovation platforms and tools.

Leveraging tools such as [IdeaScale](#), [Brightidea](#), [PMOtto](#), or [Spigit](#) can facilitate collaborative ideation and enable the evaluation of innovative ideas using AI algorithms.



ANSWERED: 694 SKIPPED: 78

"Project managers will be able to spend more time thinking creatively and come up with new and innovative solutions to problems."

"AI can analyze data and identify patterns that may be indicative of new opportunities. This information can then be used to develop new products or services or to enter new markets."

QUESTION 23

How do you see AI contributing to the successful full implementation of project management strategies?

A significant percentage of respondents express being very concerned (36.31%) or somewhat concerned (38.47%) about these implications, indicating a heightened sense of anxiety.

A portion remains neutral (16.14%), while a smaller proportion is slightly concerned (5.04%) or not concerned at all (4.03%) about the ethical aspects.

FUTURE EVOLUTION

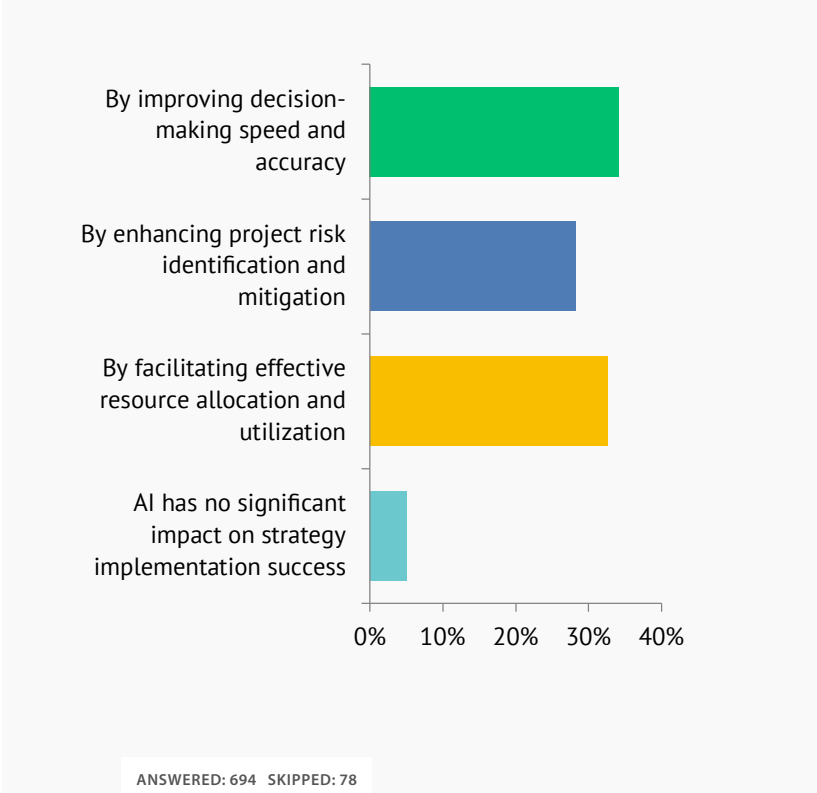
As AI technologies continue to advance, their contributions to the successful full implementation of project management strategies are expected to grow.

OUR ADVICE

You should integrate AI-native tools into your workflow to leverage AI's potential in successfully implementing project management strategies.

Tools such as **Asana**, an AI-powered project management platform, can enhance decision-making, risk management, and resource allocation.

Another option is **PMOtto**, an AI-enabled project management bot that provides advice and real-time insights.



“AI helps decision makers with huge data and analysis; the decision itself depends on people. AI can’t replace tacit knowledge.”

“By facilitating faster, more accurate and completeness of information to permit better-informed decision making by the project manager.”

QUESTION 24

What challenges do you anticipate in implementing AI in project management strategies?

The top challenges identified include a lack of technical expertise (62.39%), resistance from employees and stakeholders (66.14%), ethical concerns and transparency issues (63.26%), and budget constraints (36.46%).

Overcoming these challenges is crucial to leverage the full potential of AI in project management.

FUTURE EVOLUTION

The future evolution of AI in project management will require organizations to take bold steps. You will need to invest in comprehensive training programs to develop technical expertise among project managers and team members.

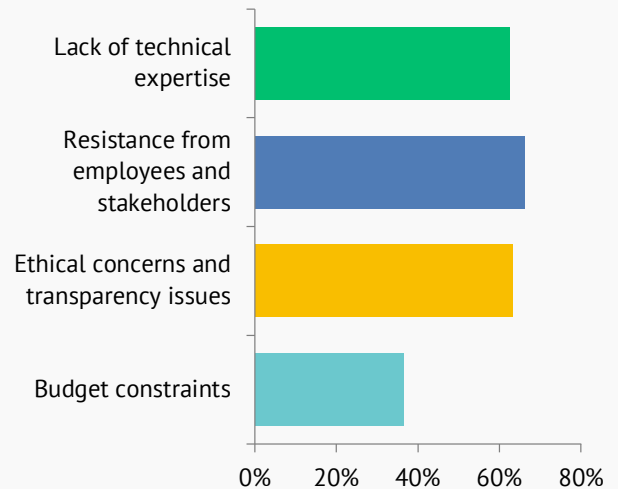
Addressing ethical concerns and ensuring transparency in AI algorithms and decision-making processes will be essential.

OUR ADVICE

Organizations should prioritize upskilling their workforce in AI technologies and project management methodologies to overcome the challenges in implementing AI in project management.

They should encourage a culture of openness and collaboration to address resistance from employees and stakeholders.

Developing clear ethical guidelines and promoting transparency in AI decision-making will foster trust and acceptance.



ANSWERED: 694 SKIPPED: 78

"Lacking experience in implementing AI solutions in Project management. Lack of available historical data in a structured form. A proper data management solution is not in place. A lot of Excel and presentation files are available as data sets."

"AI systems heavily rely on data for training and decision-making. Ensuring the availability of high-quality, relevant, and comprehensive data can be a challenge. Organizations may encounter difficulties collecting and integrating data from various sources, ensuring its accuracy, and addressing data gaps."

QUESTION 25

How likely are you to invest in further exploring AI's potential in project management?

Project managers exhibit varying levels of enthusiasm when it comes to investing in further exploring AI's potential in project management.

A significant percentage express being very likely (50.72%) to invest in exploring AI's potential, while others feel somewhat likely (29.68%).

A notable portion remains neutral (13.69%), while a smaller proportion leans toward being rather unlikely (4.03%) or improbable (1.87%) to invest in further exploration of AI in project management.

FUTURE EVOLUTION

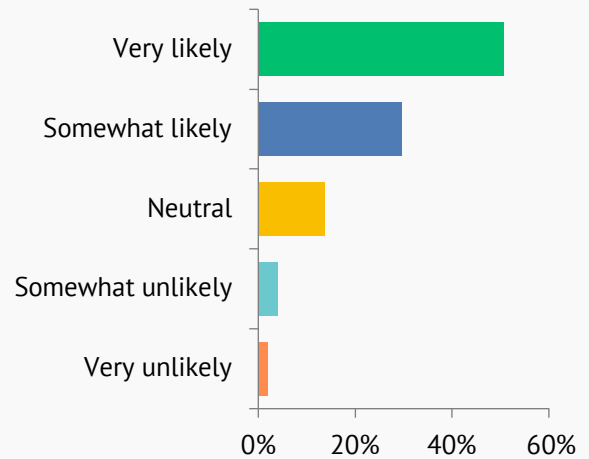
As AI technologies continue to advance, project managers who are open to investing in further exploration of AI's potential in project management will have the opportunity to stay ahead of the curve.

By embracing AI, you will unlock new possibilities for improved project outcomes, enhanced decision-making, and increased efficiency.

OUR ADVICE

If you are willing to invest in exploring AI's potential in project management, you'll need to start by gaining a deep understanding of AI concepts, algorithms, and applications.

Additionally, you should actively seek AI-powered project management tools and platforms like **PMotto**, an AI-enabled project management bot that provides advice and real-time insights.



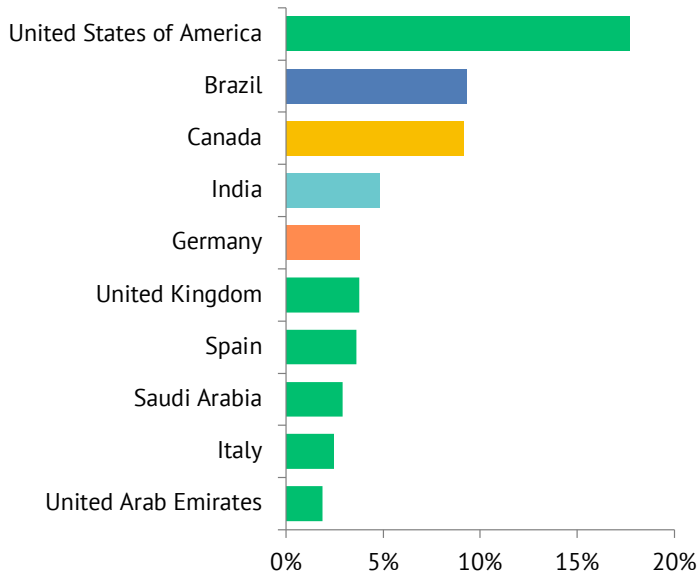
ANSWERED: 694 SKIPPED: 78

"I am very likely to invest in further exploring AI's potential in project management. I believe that AI has the potential to revolutionize project management, and I want to be at the forefront of this revolution."

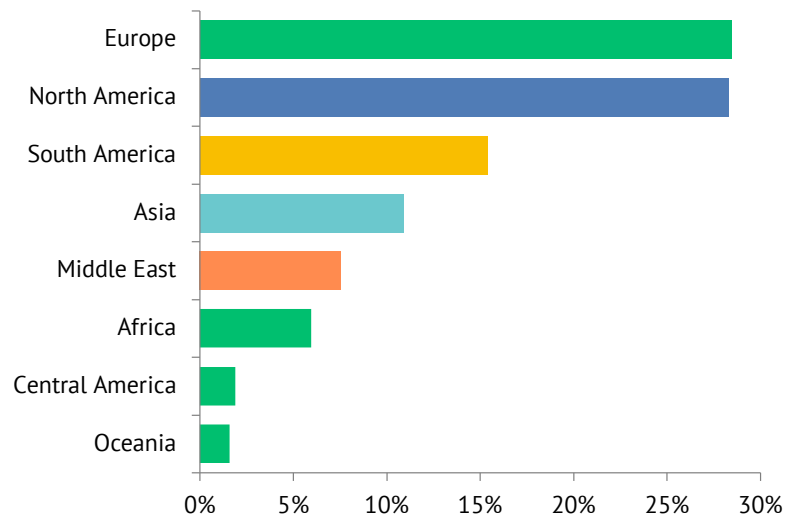
QUESTION 26

In which country do you live?

Top 10 of 95 Countries



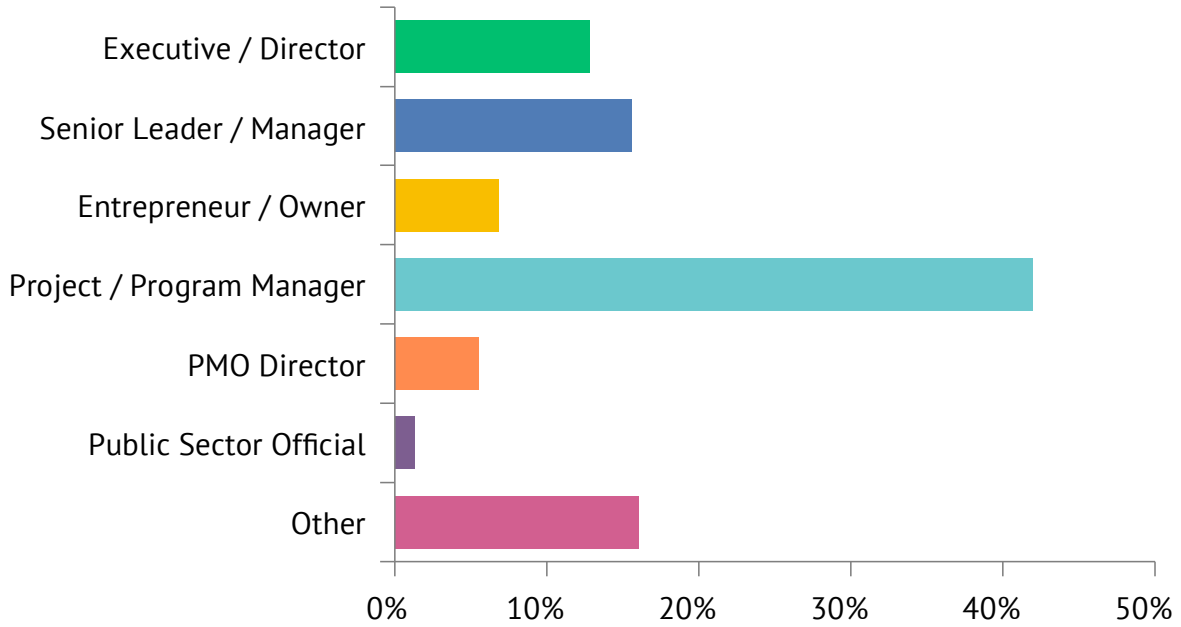
By Continent



ANSWERED: 694 SKIPPED: 78

QUESTION 27

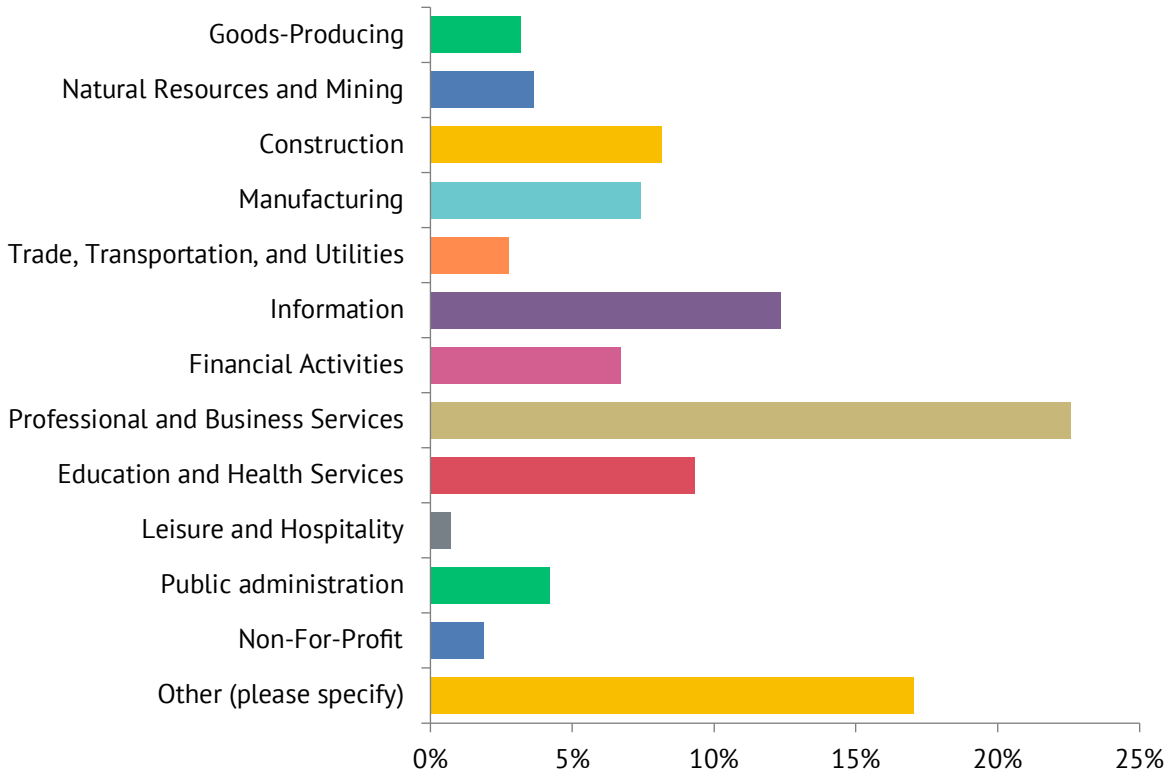
What is your current job title or role?



ANSWERED: 694 SKIPPED: 78

QUESTION 28

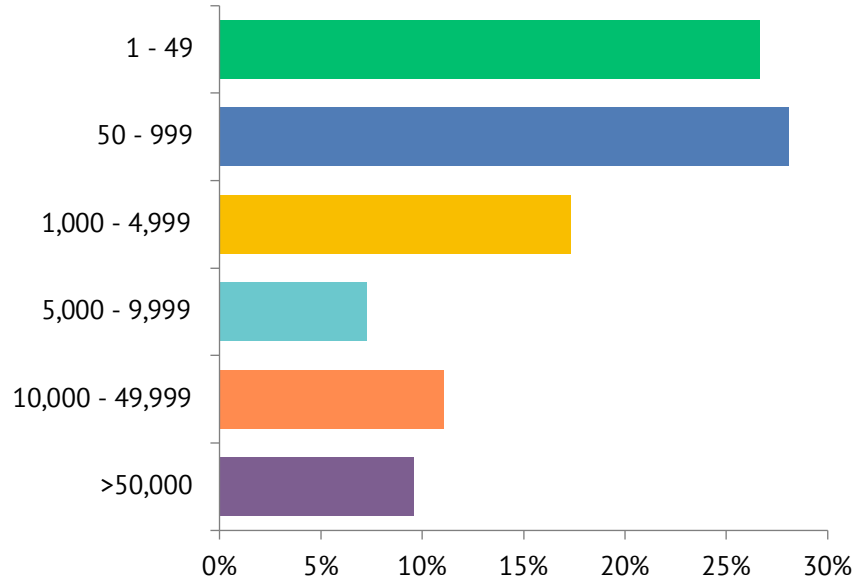
Which industry does your organization belong to?



ANSWERED: 694 SKIPPED: 78

QUESTION 29

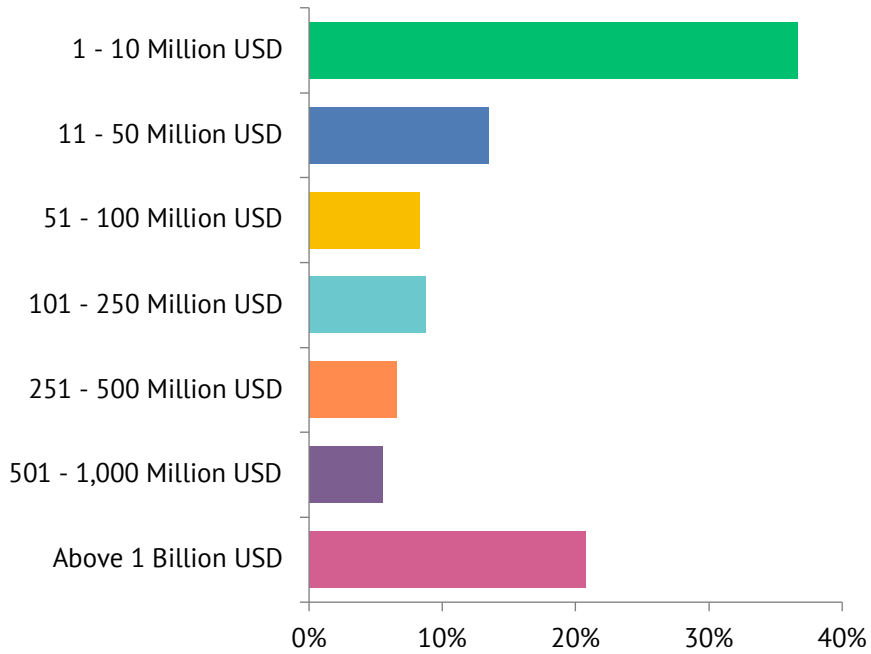
How many employees are there in your organization?



ANSWERED: 694 SKIPPED: 78

QUESTION 30

What is the annual revenue of your organization?



ANSWERED: 694 SKIPPED: 78

About the Authors



Antonio Nieto-Rodriguez

Antonio is the author of the Harvard Business Review Project Management Handbook, the featured HBR article The Project Economy Has Arrived, and five other books. His research and global impact on modern management have been recognized by Thinkers50.

A pioneer and leading authority in teaching and advising executives the art and science of strategy implementation and modern project management, Antonio is a visiting professor in seven leading business schools. Fellow and Former Chairman of the Project Management Institute he is the founder of Projects&Co and the Strategy Implementation Institute.

You can follow Antonio through his LinkedIn newsletter Lead Projects Successfully, and online course Project Management Reinvented for Non-Project Managers.

antonionietorodriguez.com



Ricardo Viana Vargas

Ricardo is an experienced leader in global operations, project management, business transformation and crisis management. Founder and managing director of Macrosolutions, a consulting firm with international operations in energy, infrastructure, IT, oil and finance, he managed more than US\$20 billion in international projects in the past 25 years.

Former chairman of the Project Management Institute (PMI), Ricardo created and led the Brightline® Initiative from 2016 to 2020 and was the director of project management and infrastructure at the United Nations, leading more than 1,000 projects in humanitarian and development projects.

He wrote 16 books in the field, has delivered 250 keynote addresses in 40 countries, and hosts the 5 Minutes Podcast, which has reached 12 million views. Ricardo holds a Ph.D. in Civil Engineering, a master's in Industrial Engineering, and an undergraduate degree in Chemical Engineering.

ricardo-vargas.com

The logo features a stylized graphic on the left consisting of three overlapping trapezoidal shapes: a green one at the top, a yellow one in the middle, and a red one at the bottom. To the right of this graphic, the text "AI-Driven Project Management Revolution" is displayed in a bold, sans-serif font, stacked in three lines.

**AI-Driven
Project Management
Revolution**

pmairevolution.com

